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Junichi Hirai

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EXAMINER

KESSLER, MATTHEW E

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/567,687	Applicant(s) HIRAI ET AL.	
	Examiner Matthew E. Kessler	Art Unit 2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 11, 12 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 13-15 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-10, 13-15, and 17 are pending.
2. Claims 11, 12, and 16 are cancelled.
3. Claims 1-10, 13-15, and 17 are rejected.

Response to Arguments

4. The new specification is accepted. The examiner withdraws his objection for minor informalities in claim 8 in light of the amended claim. The examiner withdraws his 112 objection directed to claims 3 and 13 in light of the amended claims.
5. Applicant's arguments directed towards the previous 102(b) and 103(a) rejections with respect to claims 1-10, 13-15, and 17 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The applicant has amended the independent claim 1 “such that the content received by said receiving unit is stored in said storage unit starting from the interruption location captured”

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by said interruption location capturing unit." The transmission device therefore stores content starting from the position of the interruption location. Furthermore the applicant has claimed that the transmission controlling unit is "configured to control said transmission unit so as to transmit content in said storage unit." The content which is transmitted is claimed to be stored in the storage unit.

The applicant then goes on in claim 9 to claim that "wherein said transmission controlling unit controls said transmission unit so as to transmit content to said content receiving device starting from a predetermined location in advance, by a predetermined amount, of the interruption location." It is unclear how the transmission controlling unit is sending information that is not stored in the storage unit since it has been explicitly claimed that the information which is stored in the storage unit is stored from the interrupt location and not the predetermined location.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1 are rejected under 35 U.S.C. 103(a) as being unpatentable over Omura et al. USP, 6,430,620 (Omura, hereinafter) in further view of Kikuchi et al. US Patent Number 7233735 (Kiku, hereinafter).

As to claim 1, Omura teaches a content transmission device for use with, and to be connected with, a content receiving device over a network, said content transmission device comprising (Referring to the abstract as describing a data transfer method and a system in a computer network.):

a storage unit configured to store content (Column 3, lines 5-6 describes the storing means as “the stream data read out from the storing means”);

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a transmission unit configured to transmit content to said content receiving device (Column 3, lines 10-11 describes the transmitting means, and transmitting packets through the network.);

an interruption location capturing unit configured to capture an interruption location at which the content receiving device became has become unable to receive content, or an interruption location at which a user of said content receiving device has interrupted viewing and/or listening with said content receiving device (Column 7, lines 54-62 mention using suffixes in the packets to denote positions numbers that are used in the re-transfer of data.);

a transmission controlling unit configured to control said transmission unit so as to transmit content in said storage unit to said content receiving device based on the interruption location captured by said interruption location capturing unit (Column 9, lines 38-49 states that “the position number calculated this way is informed to the packet transmitting means together with the re-transfer request requesting re-transmission of data.” It is interpreted that the position number stated is equivalent to an interruption location.);

Omura does not teach a receiving unit configured to receive content from an exterior system or device; and

a memory controlling unit configured to control the storage of content such that the content received by said receiving unit is stored in said storage unit starting from the interruption location captured by said interruption location capturing unit.

However, in an analogous art, Kiku teaches a receiving unit configured to receive content from an exterior system or device (Column 3:61-64 teaches that “to the encoder section 50, an

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external analog video signal+external analog audio signal from an AV input section 41, or an analog video signal+analog audio signal from a television (TV) tuner 42 are inputted.”); and

a memory controlling unit configured to control the storage of content such that the content received by said receiving unit is stored in said storage unit starting from the interruption location captured by said interruption location capturing unit (Kiku teaches in Column 1:25-30 that “Particularly in the present invention, when a temporary interruption operation input is supplied during on-air display, an on-air signal is automatically continued to be stored in a built-in storage medium. When a temporary interruption operation is canceled, information from a time of interruption can be displayed for a user.” When an interruption occurs, the signal is stored so that it might be reproduced at a later time.).

Therefore it would have been obvious for one of ordinary skill at the time of the invention to combine Omura’s content delivery system with Kiku’s recording of interrupted content external to the system according to the interruption location since as Kiku states in column 10:22-32 that “it is necessary to compensate for information of a period in which a temporary interruption occurs, for example, during on-air display and the user leaves the seat before a monitor screen. For this, the time slip function is utilized, and the broadcast signal of the period in which the user leaves the seat is recorded on the hard disk. On the other hand, a pause state is set on the screen, and the user can view the screen of the interrupted period of the drama when next returning to the seat.” It would have been obvious at the time of the invention to combine Kiku’s teaching for reproducing temporarily interrupted content which is external to the system with Omura’s system for reproducing interrupted content since interruptions occur and information associated only with the interruption would need to be stored.

As to claim 2, Omura further teaches wherein said interruption location capturing unit further comprises a status monitoring unit configured to receive and monitor the status of said content receiving device from said content receiving device, and capturing the interruption location based on the status (Column 9, lines 38-57. Omura teaches that the re-transfer controlling means carries out steps S31 to S32 to S33 as seen in FIG 3, which describes status monitoring and recording the position of the interruption.).

As to claim 3, Omura further teaches wherein said status monitoring unit receives a notification that reception of content has become impossible from said content receiving device, and captures the interruption location based on the notification (Column 9, lines 38-57. The re-transfer request is sending notification to the transmitting means for re-transfer due to packet loss and from FIG 6(c) described in column 9, lines 50-57 the request can be seen to include the position of the packet loss.).

As to claim 4, Omura further teaches wherein said status monitoring unit detects that an error rate of communications with said content receiving device has exceeded a predetermined value, and captures the interruption location based on the detection results (Column 2, lines 9-18. Describes monitoring the receiving buffer and in the occurrence of any data loss reports the loss rate to the packet transmitting means. It is interpreted that detecting the loss rate is detecting the error rate. Furthermore in column 9, lines 38-49 Omura describe the recording of position number in the event of data loss.).

As to claim 5, Omura further teaches wherein said status monitoring unit detects that communication between said content transmission device and said content receiving device has been cut off, and captures the interruption location based on the detection results (Column 9, lines 38-57. The re-transfer controlling means describes the status monitoring unit as well as interruption location capturing unit and is described to handle packet loss, which reads on the content transmission device and content receiving device as being cut off.).

As to claim 6, Omura further teaches wherein said interruption location capturing unit captures the interruption location based on a time at which said content receiving device became unable to receive content or a time at which the user of said content receiving device interrupted viewing and/or listening with said content receiving device (Column 10, lines 18-20. Describes using time information for the place of the position number incorporated in the packet header.).

As to claim 8, Omura further teaches wherein said transmission controlling unit controls said transmission unit so as to transmit content starting from the interruption location to said content receiving device (Column 9, lines 58-67. Omura teaches that “the re-transfer controlling means 407 reads out stream data of prescribed size from the transmission buffer 404 according to the position number included in the re-transfer request and delivers it to the packet transmitting means 402”. It is interpreted that in this case the re-transfer controlling means sends the request to the transmission means. When the transmission means receives the request it is transmitted from the interruption location, in this patent called a position number.).

As to claim 13, Omura and Kiku further teach wherein said memory controlling unit performs control so that said transmission unit transmits content to the content receiving device based on said interruption location, while said storage unit stores content received by said receiving unit (Column 9, lines 58-67. Omura teaches that “the re-transfer controlling means 407 reads out stream data of prescribed size from the transmission buffer 404 according to the position number included in the re-transfer request and delivers it to the packet transmitting means 402”. It is interpreted that in this case the re-transfer controlling means sends the request to the transmission means. When the transmission means receives the request it is transmitted from the interruption location, in this patent called a position number. Kiku teaches in Column 3:61-64 the receiving device storing data in the storage device.).

As to claim 14, Omura further teaches the wherein said status monitoring unit notifies said transmission controlling unit of detection results upon detecting that said content receiving unit has become able to receive or play back content; and said transmission controlling unit controls said transmission unit so as to transmit content of said storage unit to said content receiving device based on said detection results (Column 8, lines 31-44 teach that the client notifies the packet transmitting means of its current ability for transfer. In this case it is requesting the rate to be lowered. It is interpreted that although the client is requesting a rate change in transmission, the receiving device is still notifying the transmission unit that it is able to receive content. Column 8, lines 45-54 teach the packet transmitting means as reading out the stream data from the transmission buffer in response to the rate change request as detected by the

client. The transmission device is sending the information in response to the receiving means detection of ability to receive content.).

As to claim 15, Omura further teaches wherein said status monitoring unit, upon receiving a request for transmission starting from the interruption location from said content receiving device, notifies said transmission controlling unit of the transmission request (Column 9, lines 38-57. It is interpreted that the re-transfer requesting means is operating as the status monitor indicating when there is a need to for retransmission and that the packet receiving means is the receiving device. Omura teaches that the re-transfer requesting means in conjunction with the packet receiving means sends a request to the transmission unit to retransmit information according to the position of the lost data.); and

said transmission controlling unit controls said transmission unit so as to transmit the content in said storage unit to said content receiving device based on the notification of said transmission request (Column 9, lines 58-66 teaches the retransferring of lost data upon receiving the request for re-transfer of data.).

8. Claims 7, 9-10, are rejected under 35 U.S.C. 103(a) as being unpatentable over Omura et al. USP, 6,430,620 (Omura, hereinafter) in combination with Kikuchi et al. US Patent Number 7233735 (Kiku, hereinafter) in further view of Gleissner et al., US Patent Application 2004/0152054 (Gleissner, hereinafter).

As to claim 7 the combination of Omura and Kiku teaches the content transmission device recited in Claim 1, but does not teach wherein the content comprises a plurality of chapters, and said interruption location capturing unit captures the interruption location in chapter units.

However in an analogous art, Gleissner teaches wherein the content comprises a plurality of chapters, and said interruption location capturing unit captures the interruption location in chapter units (Paragraph [0073] teaches that content is stored in intervals. These intervals in light of Paragraph [0031] are interpreted to be chapters. Additionally paragraph [0074] teaches that playback can be in terms of segment identification information or similar position identification information.).

It would be obvious to one of ordinary skill in the art at the time of the invention to combine the combination of Omura and Kiku as described in claim 1 above with Gleissner's teaching of reproducing interrupted content as a playback according to segment or chapter information because Gleissner says in paragraph [0073] that "the tracked playback session position information may be used to maintain a 'bookmark' for a user to continue from a spot in the audio and/or video content where he or she left off at an earlier time." Additionally Gleissner suggests that playing back the content from the interrupt location is provided to the user as an option and that "the user may alter the automatic restart through a preference setting." One such setting would be to play back at the start of a segment.

As to claim 9 the combination of Omura and Kiku teaches the content transmission device recited in Claim 1, but does not teach wherein said transmission controlling unit controls

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said transmission unit so as to transmit content to said content receiving device starting from a predetermined location in advance, by a predetermined amount, of the interruption location.

However in an analogous art, Gleissner teaches wherein said transmission controlling unit controls said transmission unit so as to transmit content to said content receiving device starting from a predetermined location in advance, by a predetermined amount, of the interruption location (Paragraph [0073] teaches “In a further embodiment, the restart of playback may start at a point in the audio and/or video content slightly before the last played point. The playback may also begin at the beginning of the current segment, after the end of a previous sentence or dialog exchange or at a similar starting point.”).

Therefore it would have been obvious for one of ordinary skill in the art at the time of the invention to combine Omura and Kiku's combined transmission device with Gleissner's method of previously viewed content playback before resuming content transmission because as Gleissner says in paragraph [0073] “it may be desirable to return to the beginning of, e.g., the current dialogue exchange if days have passed”.

As to claim 10 the combination of Omura and Kiku teaches the content transmission device recited in Claim 1, but does not teach wherein said content comprises a plurality of chapters;

said interruption location capturing unit captures as the interruption location the chapter including a location at which said content receiving device has become unable to receive content, or the location at which the user of said content receiving device interrupted viewing and/or listening with said content receiving device; and said transmission controlling unit controls said

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transmission unit so as to transmit content to said content receiving device starting from the beginning of the chapter captured by said interruption location capturing unit (Paragraph [0073] teaches “In a further embodiment, the restart of playback may start at a point in the audio and/or video content slightly before the last played point. The playback may also begin at the beginning of the current segment, after the end of a previous sentence or dialog exchange or at a similar starting point.”).

Therefore it would have been obvious for one of ordinary skill in the art at the time of the invention to combine Omura and Kiku's combined transmission device with Gleissner's method of previously viewed content playback before resuming content transmission because as Gleissner says in paragraph [0073] “it may be desirable to return to the beginning of, e.g., the current dialogue exchange if days have passed”.

9. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Omura et al. USP, 6,430,620 (Omura, hereinafter) in further view of Gleissner et al., US Patent Application 2004/0152054 (Gleissner, hereinafter).

As to claim 17, Omura teaches a content transmission device connected with a content receiving device over a network, comprising (Referring to the abstract as describing a data transfer method and a system in a computer network.):

a storage unit configured to store content (Column 3, lines 5-6 describes the storing means as “the stream data read out from the storing means”);

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a transmission unit configured to transmit content to said content receiving device (Column 3, lines 10-11 describes the transmitting means, and transmitting packets through the network.);

an interruption location capturing unit configured to capture an interruption location at which the content receiving device became has become unable to receive content, or an interruption location at which a user of said content receiving device has interrupted viewing and/or listening with said content receiving device (Column 7, lines 54-62 mention using suffixes in the packets to denote positions numbers that are used in the re-transfer of data.);

a transmission controlling unit configured to control said transmission unit so as to transmit content in said storage unit to said content receiving device based on the interruption location captured by said interruption location capturing unit (Column 9, lines 38-49 states that “the position number calculated this way is informed to the packet transmitting means together with the re-transfer request requesting re-transmission of data.” It is interpreted that the position number stated is equivalent to an interruption location.);

Omura does not teach wherein said interruption location capturing unit captures the interruption reason for which the content receiving device became unable to receive content, or the interruption reason for which the user of said content receiving device interrupted viewing and/or listening with said content receiving device; and

said transmission controlling unit determines the predetermined distance to retrace from the interruption location according to said interruption reason, and controls said transmission unit to transmit content starting from the predetermined distance determined to said content receiving device.

However in an analogous art, Gleissner, teaches wherein said interruption location capturing unit captures the interruption reason for which the content receiving device became unable to receive content, or the interruption reason for which the user of said content receiving device interrupted viewing and/or listening with said content receiving device (Paragraph [0074] teaches that “In one embodiment, additional state information for the system may be tracked and stored including additional material playback position, inference engine, change logs, current settings and preference and similar data.” More relevant is Paragraph [0073]’s teaching that says “In one embodiment, an amount of time elapsed since the last playback session may be factored into the determination of where play should be restarted. For example, beginning at the start of the most recent sentence may be sufficient if playback was interrupted by, e.g., a two minute telephone call. But, it may be desirable to return to the beginning of, e.g., the current dialogue exchange if days have passed.” It is interpreted that the data which is stored that can delineate the difference between a 2 minute phone call or an interruption that lasted days is the data being stored which represents the reason the viewing/listening was interrupted.); and

said transmission controlling unit determines the predetermined distance to retrace from the interruption location according to said interruption reason, and controls said transmission unit to transmit content starting from the predetermined distance determined to said content receiving device (Omura teaches the transmission controlling unit transmitting according to the location of the interruption. Gleissner teaches the data for the reason of interruption. Gleissner also teaches that playback “beginning at the start of the most recent sentence may be sufficient if playback was interrupted by, e.g., a two minute telephone call. But, it may be desirable to return to the beginning of, e.g., the current dialogue exchange if days have passed.”).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Omura's content transmission device with Gleissner's teaching of storing information about the reason of interruption and then reproducing the content according to the stored information because Gleissner says in paragraph [0073] that its desirable to return to different points in the content for playback according to the data associated with the interruption.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew E. Kessler whose telephone number is (571) 270-5005. The examiner can normally be reached on Monday through Thursday 7:00 am - 5:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on (571)272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MK/

/Jason D Cardone/
Supervisory Patent Examiner, Art Unit 2145